

REMARKS/ARGUMENTS

In the Office Action of February 25, 2005, pending claims 1, 6-8, 10, 13-14, 19-20, 21 and 23 were rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,515,026 to Ewert. Claims 2-5, 9, 15-18, 22, 24, and 27-41 were rejected under 35 U.S.C. § 103(a) as being unpatentably obvious over Ewert. Claims 11, 12, 25, 26, and 42-47 were indicated allowed or would be allowable if rewritten in independent form including all the limitations of the base claim and any intervening claims.

Applicant respectfully requests that the rejection of the claims in view of Ewert be reconsidered in view of the foregoing amendment of the claims and the arguments which follow. As will be discussed in more detail below, it is respectfully submitted that Ewert does not describe or suggest the specific features of the invention as reflected in the claims, as amended.

It is first respectfully noted that a claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. Also, the identical invention must be shown in as complete detail in the cited reference as contained in the claim. (*See MPEP 2131.*) It is respectfully noted that the Examiner bears the initial burden of factually supporting any *prima facie* conclusion of obviousness. To establish a *prima facie* case of obviousness there must be some suggestion or motivation, either in the reference itself or in the knowledge generally available to one of ordinary skill in the art, to modify the reference teachings, there must be a reasonable expectation of success, and the prior art reference must teach or suggest all the claim limitations. Knowledge of applicant's disclosure must be put aside in reaching this determination. Impermissible hindsight must be avoided and the legal conclusion must be reached on the basis of the facts gleaned from the prior art. (*See MPEP 2142.*)

Ewert describes a system that projects sound from a moving vehicle. The projected sound is described as a natural sound in an audible frequency range of 16 – 20,000 Hz. Examples of such natural sounds as listed in Ewert include clicks, snaps, cracks, pops, crunches, ticks, clacks, zaps, or the like. Further details of the characteristics of the sounds produced are not described in Ewert. The sounds may be recorded and processed natural sounds stored in memory. (*See Ewert*, column 6, lines 56-64.) Alternatively, the sounds may be generated using a mathematical function. (*See column 6, line 65 to column 7, line 3 of Ewert.*) A series of dip switches may be used to manually select from between different

sound patterns stored in memory to be produced by the system. (*See* column 6, lines 33-44 of Ewert.)

By the foregoing amendment of the claims, new Claim 48 has been added to replace Claim 1 as originally filed with the application. It is respectfully submitted that new Claim 48 is fully supported by the application specification and drawings as originally filed. (*See*, in particular, the description provided in paragraphs [0037]-[0041] of the application specification as originally filed, and figures 4 and 5 thereof.) Claims 2, 3, 6, 8, and 11, which depended directly from cancelled Claim 1, have been amended to depend from new Claim 48 instead. Claims 2 and 4, which depended, directly or indirectly, from cancelled Claim 1, have been amended to change the language thereof slightly to conform to the language used in new Claim 48. Claim 5, which depended, indirectly, from cancelled Claim 1 has also been cancelled.

New independent Claim 48 is drawn to a method for alerting animals to prevent animal-vehicle crashes by projecting from a moving vehicle a specific sound pattern. As featured in new independent Claim 48, the projected sound pattern includes a plurality of different groups of sounds, wherein each of the plurality of different groups of sounds includes a plurality of sounds in an audible frequency range separated by short silent periods. As also featured in new Claim 48, the sound pattern projected from the moving vehicle is generated by automatically randomly selecting a one of the plurality of different groups of sounds to be projected, followed by a long silent period that is longer in duration than the short silent periods between sounds in the groups of sounds, and repeating the automatic random selection of sounds followed by long silent periods. Thus, new Claim 48 features projecting from a moving vehicle the sound pattern as illustrated, for example, in Fig. 4 of the application specification. The sound pattern includes a plurality of different sound groups 64 separated by long silent periods 66. Each of the sound groups 64 includes a plurality of sounds 68, separated by shorter silent periods 70. Each of the sound groups is different, e.g., differing in frequency and/or duration. Also, the sequence of sound groups 64 in the sound pattern is automatically randomly selected. It is respectfully submitted that this sound pattern to be projected from a moving vehicle to prevent animal-vehicle crashes as featured in new Claim 48 is not described or suggested by Ewert.

Ewert describes a sound pattern that is described as "natural" and is in audible frequency range. A specific frequency range of 16 to 20,000 Hz is mentioned in Ewert, however, no further details describing the sound pattern produced are provided in Ewert, other than to suggest that natural sounds such as "clicks, snaps, cracks, pops, crunches, ticks,

clacks, zaps, or the like" may be used. As far as the applicant is aware, there is no standard definition for the characteristics of such "natural" sounds. In any case, Ewert does not describe or suggest what such specific characteristics may be. In particular, Ewert does not describe or suggest that such "natural" sounds may constitute the sound pattern that is described specifically in new Claim 48. It is respectfully submitted that nothing in Ewert describes or suggests that the "natural" sounds mentioned therein include a plurality of randomly selected different sound groups, separated by long silent periods wherein each sound group includes individual sounds separated by shorter silent periods. In particular, Ewert does not mention automatically "randomly" determining a sound pattern or "silent periods" in the sound pattern as featured in new Claim 48. Neither of these terms or concepts are mentioned anywhere in association with the sound pattern described in Ewert.

For the foregoing reasons, specifically since Ewert does not describe or suggest projecting from a moving vehicle the sound pattern featured in new Claim 48, it is respectfully submitted that Claim 48 is not anticipated by, or unpatentably obvious over, Ewert and is, therefore, in condition for allowance. Claims 2-4 and 6-12, as amended, depend, either directly or indirectly, from new Claim 48 and incorporate the features thereof. Therefore, it is respectfully submitted that Claims 2-4 and 6-12 also are not anticipated by, or unpatentably obvious over Ewert and, therefore, are also in condition for allowance.

By the foregoing amendment of the claims, independent Claim 13, as originally filed has been cancelled and replaced with new independent Claim 49. Dependent Claims 14, 15, 19, 21, 25, and 27, which depended directly from independent Claim 13, have been amended to depend instead from new Claim 49. Dependent Claims 14, 15, and 17, which now depend, either directly or indirectly, from new independent Claim 49 also have been amended slightly to conform the language thereof to that used in new Claim 49. Claim 18, which depended indirectly from cancelled Claim 13, has also been cancelled.

New independent Claim 49 is drawn to an alerting device adapted for mounting on a vehicle and includes a speaker, a driver circuit coupled to the speaker for driving the speaker in response to sound generation control signals received thereby, and a control circuit coupled to the driver circuit and adapted to generate control signals for producing via the driver circuit and speaker a sound pattern. As featured in new Claim 49, the sound pattern produced by the control circuit includes a plurality of different groups of sounds, wherein each of the plurality of groups of sounds includes a plurality of sounds in an audible frequency range separated by short silent periods. The control circuit is adapted to automatically randomly select one of the plurality of different groups of sounds followed by a long silent period that

is longer in duration than the short silent periods between the sounds within the selected group of sounds, and to repeat the automatic random selection of sound groups followed by long silent periods to generate the sound pattern produced via the driver circuit and speaker. Thus, new Claim 49 features a device including a control circuit for generating the sound pattern described above in new Claim 48. It is thus respectfully submitted that new Claim 49 also is fully supported by the application specification as originally filed, for the reasons discussed above with referenced to new Claim 48.

It is also respectfully submitted that new independent Claim 49 also is not anticipated by, or unpatentably obvious over, Ewert for the reasons discussed above with reference to new Claim 48. Specifically, new Claim 49 features a device that includes a control circuit for generating a sound pattern by automatically randomly selecting a series of different sound groups, wherein each such sound group includes a plurality of sounds in an audible frequency range separated by short silent periods, and wherein the selected sound groups are separated by longer silent periods. (E.g., a sound pattern of the type illustrated in page 4 of the application specification.) As discussed above, with reference to Claim 48, Ewert only describes and suggests the use of "natural" sounds, described generically as clicks, snaps, cracks, pops, crunches, ticks, clacks, zaps, or the like. The specific sound pattern generated by the control circuit featured in new Claim 49, having different randomly selected sound groups separated by long silent periods is not described or suggested in Ewert.

Since Ewert does not describe or suggest the sound pattern generated by the control circuit featured in new Claim 49, it is respectfully submitted that new Claim is not anticipated by, or unpatentably obvious over, Ewert and is, therefore, in condition for allowance. Claims 14-17 and 19-27, as amended, depend, either directly or indirectly, from new Claim 49 and incorporate the features thereof. Therefore, it is respectfully submitted that these dependent claims also are not anticipated by, or unpatentably obvious over Ewert and are, therefore, also in condition for allowance.

Independent 28 of the present application, as pending and originally filed, is also drawn to a method for alerting animals to prevent animal-vehicle crashes. Independent Claim 28 features projecting from a moving vehicle a sound pattern comprising groups of sounds separated by silent periods, wherein each group of sounds includes one or more sounds in an audible frequency range, and wherein a ratio of a duration of the groups of sounds to a duration of a silent periods in the sound pattern is less than 1:1. An exemplary sound pattern of this type is illustrated, for example, in Fig. 4 of the present application. A notable

characteristic of this sound pattern is that the sound pattern as a whole consists of more silence than sound.

It is first respectfully noted that Ewert does not describe the sound patterns produced by the total alert driver safety system described therein in any great detail. In particular, Ewert does not even mention that the sound pattern described therein has any silent periods as a part thereof. Thus, it is respectfully submitted that Ewert does not describe or suggest that the "natural" sound patterns include silent periods that constitute a greater portion of the entire sound pattern than the actual sound groups, as specifically featured in independent Claim 28. Ewert does suggest that the sound pattern produced by the system described therein may be made variable by either reprogramming the system or by changing dip switch settings, to prevent deer and other animals from growing accustomed or "immune" to the alerting signal. However, Ewert does not describe or suggest that silent periods within the sound pattern to be produced is one of the characteristics that should be varied. Specifically, Ewert only suggests that the dip switch settings be varied to produce either a higher pitched sound or a lower pitched sound. (See column 6, lines 36-37 of Ewert.) Ewert also suggests that the dip switches may be configured to produce variable sound patterns and intervals. It is certainly not clear that the word "intervals" as used herein refers to silent periods within the sound pattern, and, in any case, Ewert does not describe or suggest that such silent periods constitute the majority of the sound pattern generated, as featured in Claim 28.

In the Office Action the Examiner appears to suggest that one of ordinary skill in the art at the time the invention was made would tweek the sound pattern described in Ewert with silent periods to keep the patterns variable and unpredictable. However, Ewert does not describe or suggest such tweeking with silent periods or, more specifically, tweeking a sound pattern to obtain a ratio of less than 1:1 for sound and silence, as featured in Claim 28. Furthermore, no additional evidence is provided to support such a conclusion. As provided in MPEP 2144.03: "general conclusions concerning what is 'basic knowledge' or 'common sense' to one of ordinary skill in the art without specific factual findings and some concrete evidence in the record to support these findings will not support an obviousness rejection" and "it would not be appropriate for the examiner to take official notice of facts without citing a prior art reference where the facts asserted to be well known are not capable of instant and unquestionable demonstration as being well-known". It is respectfully submitted that the Examiner has not provided such evidence in this case. Specifically, applicant respectfully disagrees that tweeking the sound patterns described in Ewert to achieve a sound to silence ratio of less than 1:1, as featured in Claim 28, is capable of "instant and unquestionable

demonstration of being well-known", in view of the fact that neither Ewert nor any other cited reference describe or suggest such a sound pattern as claimed in Claim 28.

For the foregoing reasons, since Ewert does not describe or suggest projecting from a moving vehicle a sound pattern comprising groups of sounds separated by silent periods wherein the duration of the groups of sounds to the duration of the silent periods in the sound patterns is less than 1:1, as featured in Claim 28. Therefore, it is respectfully submitted that Claim 28 is not anticipated by, or unpatentably obvious over, Ewert, and is, therefore, in condition for allowance. Claims 29-34 depend, either directly or indirectly, from Claim 28 and incorporate the features thereof. Therefore, it is respectfully submitted that dependent Claims 29-34 also are not anticipated by, or unpatentably obvious over, Ewert and are, therefore, in condition for allowance.

Independent Claim 35 as originally filed and pending in the application is drawn to an animal alerting device adapted for mounting on a vehicle to prevent animal-vehicle crashes. Claim 35 features a speaker, a driver circuit coupled to the speaker for driving the speaker in response to sound generation control signals received thereby, and a control circuit coupled to the driver circuit and adapted to generate the sound generation control signals for producing via the driver circuit and speaker a sound pattern. As specified in Claim 35, the sound pattern generated by the control circuit includes groups of sounds separated by silent periods, wherein each group of sounds includes one or more sounds in an audible frequency range, and wherein a ratio of a duration of the groups of sounds to a duration of the silent periods in the sound pattern is less than 1:1. Thus, Claim 35 features a control circuit for generating the sound pattern featured in the corresponding method Claim 28.

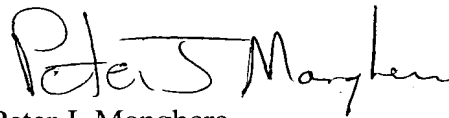
As discussed above, with reference to the discussion of Claim 28, Ewert does not describe or suggest producing a sound pattern comprising groups of sound separated by silent periods wherein the sound pattern as a whole includes longer silent periods than sound periods, as featured in Claim 35. Therefore, it is respectfully submitted that Claim 35 is not anticipated by, or unpatentably obvious over, Ewert and is, therefore, in condition for allowance. Claims 26-41 depend, either directly or indirectly, from Claim 35 and incorporate the features thereof. Therefore, it is respectfully submitted that Claims 36-41 also are not anticipated by, or unpatentably obvious over, Ewert and are, therefore, also in condition for allowance.

Dependent Claims 2, as amended, which depends from new Claim 48, and 15, as amended, which depends from new Claim 49, also feature projecting or a control circuit for generating a sound pattern wherein a ratio of a duration of the group of sounds in the sound

pattern to a ratio of a duration of long silent periods and the sound pattern is less than 1:1. Thus, Claims 2 and 15 feature a sound pattern that is comprised of mostly silent periods, as is featured in independent Claims 28, and 35, as just discussed. Therefore, it is respectfully submitted that dependent Claims 2 and 15 also are not anticipated by, or unpatentably obvious over, Ewert, and are, therefore, also in condition for allowance, for the additional reasons discussed above with reference to independent Claims 28 and 35.

For the foregoing reasons, it is respectfully submitted that remaining pending Claims 2-4, 6-12, 14-17, and 19-49, as originally filed, amended, or newly added to the application are not anticipated by or unpatentably obvious over Ewert and are, therefore, in condition for allowance. Favorable on the present application is, therefore, respectfully requested.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Peter J. Manghera". The signature is fluid and cursive, with the first name "Peter" and last name "Manghera" clearly distinguishable.

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